Chiricahua Leopard Frog Recovery Team SE AZ/SW NM Steering Committee Meeting
January 22, 2014 Meeting Notes
Arizona Game and Fish Department, Region V Building, Tucson, Arizona

Attendees:

Michelle Christman	US Fish and Wildlife Service, Albuquerque NM	michelle_christman@fws.gov
Jeff Servoss	US Fish and Wildlife Service, Tucson AZ	jeff_servoss@fws.gov
Sharon Lashway	Arizona Game and Fish Dept.	slashway@AGFD.gov
Cody Mosley	Arizona Game and Fish Dept.	cmosley@AGFD.gov
Christina Akins	Arizona Game and Fish Dept.	cakins@AGFD.gov
David Hall	UofA, Frog Project	davidhall31@gmail.com
Brent Sigafus	USGS	bsigafus@usgs.gov
Matt Killeen	The Nature Conservancy	mkilleen@tnc.org
Geoff Bender	SW Research Station	gbender@amnh.org
Dennis Caldwell	Tucson Herpetological Society, Frog Project	dennis@caldwell-design.com
Holly Lawson	Rosemont Copper	hlawson@rosemontcopper.com
Phil Rosen	University of Arizona	pcrosen@email.arizona.edu
Abi King	Arizona Game and Fish Dept.	aking@AGFD.gov
Tim Snow	Arizona Game and Fish Dept.	tsnow@AGFD.gov
Christopher Morris	Sky Island Alliance	Christopher@skyislandalliance.org
Eric Wallace	Westland Resources	batrachian@yahoo.com
Mike Sredl	Arizona Game and Fish Dept.	msredl@AGFD.gov
Jim Rorabaugh	Private	jrorabaugh@hotmail.com
Duane Aubuchon (Call in)	Arizona Game and Fish Dept	daubuchon@AGFD.gov
Bill Radke (Call in)	US Fish and Wildlife Service	Bill_Radke@fws.gov
Tom Jones (Call in)	Arizona Game and Fish Dept	tjones@AGFD.gov

Meeting Purpose and Focus:
The objective of the annual steering committee meeting is to 1) focus on the status of Chiricahua leopard frogs (CLF) across recovery units 1-4, 2) exchange regional successes and challenges relating to recovery of CLF, 3) identify priorities of CLF recovery for long term delisting, and 4) determine appropriate goals for use of limited resources among objectives.

Change in Fish and Wildlife Service Chiricahua Leopard Frog Species Lead:
The new U.S. Fish and Wildlife species lead for CLFs is Cat Crawford, who will be replacing Jeff Servoss. Jeff will focus on the two gartersnakes, which are proposed for federal listing.

Action Items:

- D. Caldwell will post a link to their FROG Project report on the CLF listserv.
- D. Caldwell will get information regarding Willet Landowner to G. Bender and A. King.
- A. King will add D. Caldwell to RU3 email list.
- M. Killen will send Pat Scott Canyon and Trout Pond observations to C. Akins.
- M. Christman will get BLM contact in NM for M. Killeen.
- S. Lashway will check to see if CAMP might have funds to get a liner into Halfmoon Tank via helicopter.
- B. Radke will forward bullfrog observation at Coronado National Memorial to M. Sredl and C. Akins.
- M. Sredl will post key players involved in the NFCTM to the CLF's listserv.
- S. Lashway will coordinate the development of a directory composed of names, affiliations, and region of work related to CLF recovery.
- C. Akins will coordinate with Partners for Fish and Wildlife to confirm whether or not bullfrog removal projects are an eligible.
- RU1 Local Recovery Team members will involve BCI, SIA, and other potential funding sources to move work forward with bullfrog monitoring and habitat renovations if applicable.
- Everyone will review the CLF Recovery Update document-using track changes and add potential funding sources or limitations in each RU summary section.
- M. Sredl will post playback study Heritage report to CLF listserv.
- M. Sredl will send the Annual CLF Update to native fish and gartersnake leads.
- M. Christman will post the electrofishing report on frogs to the CLF listserv.
- All, send M. Sredl email if you wish to view the AGFD CAMP Report
- Next Steering Committee meeting will be January 22, 2015

Recovery Unit Updates for Units 1-4: (*Please see 2013 Annual Updates for additional details on recovery activities and summaries).*

RU1
Buenos Aires National Wildlife Area - Brent Sigafus (USGS) gave updates back to 2007 pertaining to the Buenos Aires National Wildlife Refuge (BANWR). He mentioned the current PIT tagging going on at Rock Tank and that the site has a robust population. Carpenter Tank is a more volatile population but is reproducing. Triangle Tank appears more stable, with abundant vegetation and production of CLF egg masses. State tank was blown out in 2007 and a

renovation project was completed allowing for the tank to hold water; the tank is now occupied by CLFs. *Batrachochytrium dendrobatidis* (Bd) sampling in BANWR came up negative.

Alamo-Pena Blanca-Peck Canyon and Pajarito Wilderness Area - Christina Akins (AGFD) mentioned that CLF's were observed at 18 sites, four of which were new sites due to natural dispersal and six that had documented breeding. Although few frogs were tested for Bd, four out of five samples tested positive.

Ruby Bullfrog Removal – Bullfrog removal efforts have been extremely successful in RU1 due to efforts between Sky Island Alliance and University of Arizona. Surveys around Ruby have been proven to be very effective. Oro Blanca Wash seems to have a source population located somewhere within its reach because bullfrogs are dispersing through it.

RU2

Santa Rita Mountains MA - CLF's were detected at 14 sites with five sites showing signs of breeding, three of those sites were a result of natural dispersal. One of the natural dispersal sites was at the metal drinker at Tunnel Spring, which was the first sighting at this location in a number of years. Of five samples, none tested positive for Bd. Augmentation occurred at an unnamed tank between Hog and Fort canyons and at Bowman Tank which received toe-clipped frogs contributing to an immunogenetic study. A female Tarahumara frog was detected again in Gardner Canyon, which had originally dispersed from Big Casa Blanca Canyon.

Sharon Lashway (AGFD) spoke about a possible Safe Harbor Agreement which may contribute to the Gardner Canyon metapopulation.

Mike Sredl (AGFD) discussed plans to release Tarahumara frogs to Gardner Canyon this year. This led to discussion of the risk of this action from a disease standpoint. Although we can ensure that Bd would not be introduced into the system with the released Tarahumara frogs by using a prophylactic treatment, there were concerns that Tarahumara frogs could be a Bd reservoir, which would only likely be an issue for Gardner Canyon only. Mike mentioned that if any concerns existed with the Tarahumara frogs please contact him for additional discussion.

Empire Cienega Area -David Hall (UofA, FROG Project), gave an update on Empire Cienega Management Area and the success that has been occurring across the MA. Bullfrog eradication efforts have had great success in the region, which may open up the possibilities of future releases of CLF's to some locations but surveys need to be completed in 2014 for a better understanding of the dynamics of the area.

Huachuca Mountains / San Rafael Valley Area -Christina Akins (AGFD) gave an update for the Huachuca Mountains MA. CLF's were detected at seven sites with four showing evidence of breeding. Peterson Ranch Pond supports a robust breeding population. Beatty Guest Ranch habitat renovations are occurring because of negative impacts from the 2011 Monument Fire.

TNC, Ramsey Canyon pond didn't have any die offs but post fire effects seems to be affecting the number of frogs in the upper reaches.

RU3

Geoff Bender (SWRS) stated that, 23 egg masses were located with 17 being head started. During the first freeze, 12 frogs died and three frogs are overwintering in the swimming pool. A total of 550 tadpoles were released in Leslie Canyon and 340 were released into the Jakse/Hirt SHA. The Ash Spring pond renovation in Cave Creek is in the works.

Willow Pond was brought up because it is a current bullfrog problem. The private property landowner (Wilet) has been contacted but needs to be followed up on.

Michelle Christman (USFWS) gave an update on the New Mexico side of RU3. Fort Worth Zoo was able to induce breeding in frogs by using hormones. As a result tadpoles were released to Clanton Tank. Fish are a major issue at many sites. High Lonesome Well is not suitable for release, but does support frogs.

RU4

Galiuro Mountains MA -Abi King (AGFD) reviewed last year's activities in the Galiuro Mountains MA. CLF's were detected at ten sites with breeding occurring at seven sites. Natural dispersal was documented at one site and two additional sites were reported as having CLF's disperse to them but these have not been verified. Augmentation occurred at two separate sites with four egg masses and 20 frogs from Discovery Park and another 195 frogs from a wild site. Genetic samples were collected from one site to be analyzed by the Smithsonian Conservation Biology Institute.

Sharon Lashway (AGFD) reviewed CAMP activities in the Galiuros. Bull Tank received 303 CLF's and reported frogs dispersing from that location to Little Bull Tank. Interns seined Cave Tank and removed 400 salamanders. In addition to this, Saddle Tank filled during the monsoon and spilled over to an adjacent tank.

Dragoon Mtns MA, for overview of this MA, see Annual Recovery Update.

CAMP CLF Project Updates

Sharon (AGFD) discussed water permanency in stock tanks within RU4 in which she also passed out a summary of the Discovery Park egg mass transplant. Because of the renovation that occurred at Bull Tank, Brent (USGS) spoke about specifically looking at the inflow of water to tanks because changes might not occur directly to the tank, but might actually be upstream of the tank which would result in a loss of water fed into the tank.

Mike (AGFD) talked about the goal of CAMP; with Dennis (FROG Project) asking if creating or securing habitats that hold water year round should be a focus? Sharon (AGFD) responded that her counterpart in Pinetop is working on similar issues.

Christina (AGFD) also spoke about the Partners for Fish and Wildlife Program and their funding opportunities for work on private land. She mentioned that the program is in need of projects and to contact Partners Program directly with ideas.

<u>CLF Recovery Program Successes and Challenges</u>

Ideas brought up by the group included, increasing NM/AZ coordination, increasing collaboration between native fish and gartersnake leads, as well as identify funding for habitat renovations. It was brought up that CLF, native fish, and gartersnakes leads should work together to discuss overlapping conservation goals and strategies which would allow better use of funds to achieve conservation objectives. Groups suggested that we reach out to, include the Native Fish Conservation Team (NFCT), the Gartersnake Working Group and the Tarahumara Conservation Team. Communication is a major hurdle when talking about working with other species leads, and is something everyone agreed we can work on. Sharon (AGFD) volunteered to assist with the collaboration of these groups. Sharon is a good candidate for this action item since she has been working with fisheries for several years and the CAMP program is composed of several multispecies goals and objectives. If you have specific questions regarding native fish or gartersnake work occurring in our region and don't know who to contact, it is suggested you speak with Sharon Lashway or other AGFD or Forest Service (FS) personnel for contact

information of species or regional leads. Another challenge that was raised was the limited FS district biologist positions across the recovery area. District biologists are stretched too thin and are having to cover districts that are vacant in addition to their own. For example, the Sierra Vista District biologist is working on Douglas Ranger District projects until that position gets filled.

Lack of funding is an issue and may compromise the ongoing bullfrog removal work in RU1 and RU2. Current funding sources might dry up which could allow for bullfrogs to recolonize areas that they have been removed from. Pena Blanca Lake is funded for 10 years but this funding is not eligible or available for bullfrog removal west of Pena Blanca Lake near the town of Ruby. Drought is another major issue that could impede recovery efforts across the landscape. Random surveys since 2008 show a loss of 33% of CLF habitat since that time.

Questions raised by the group:

Because money is limited how should it be spent?
Long term problems facing CLF's are not going to go away if we stop efforts?
What is the maintenance cost of what we have already completed?
Could a tool of progresses be created to show potential issues?

We can't let all of our efforts go to waste, through the annual update or local recovery groups we should update financial costs and consequences of limited resources on accomplishments and objectives.

2014 Agenda Items – Continue discussion on Long Term Recovery Database

Possibly have maps of areas to get spatial reference of the local area where recovery is taking place. A reminder was given to partners that all positive and negative CLF protocol survey data must be submitted to AGFD and FWS under permit requirements. In order to populate the Long Term Recovery Database, raw data needs to be submitted to local recovery groups leads and then to AGFD and FWS. This data can then be summarized into a long-term recovery database. Preliminary data will be provided to group members in major field areas to help with long term recovery objectives, but can be adjusted according to group needs. This data would be geo-referenced and then PDF maps could be created with layers for easy use outside of GIS software. The benefits of this reporting would be that partners would see both positive and negative CLF data, selected threats and easily share data at multiple scales. We must keep it simple for now and address needs and issues in the future.

Comments specifically for long term data recovery sheet:

Capturing protocol and non-protocol data is a must (incidental info).
Looking at raw data could help to determine needs for recovery.

Important, Upcoming Dates

Rim Steering Committee Meeting - March 12
RU2 Huachucas – March 6th
RU5 Gentry and Upper Verde – Feb 4th
RU7 – Feb 19th
RU4 Dragoons – Feb 6th
RU4 Galiuros – Feb 12th
RU3 - March 19

RU6 – March?
AZ CLF Certification Workshop - May 28th and 29th
NM workshop – May (date TBD)

Other Items

FWS is still accepting comments relating to the two gartersnakes up for listing. Final rule is expected in July of 2014.

Spot recognition program in development, which would allow for frog spot patterns to be used as a finger print for recapture recognition of individuals. Issues brought up were the amount of data required to store photos versus pit tag data or other methods.
Rotenone study suggests that CLF are susceptible to Rotenone.